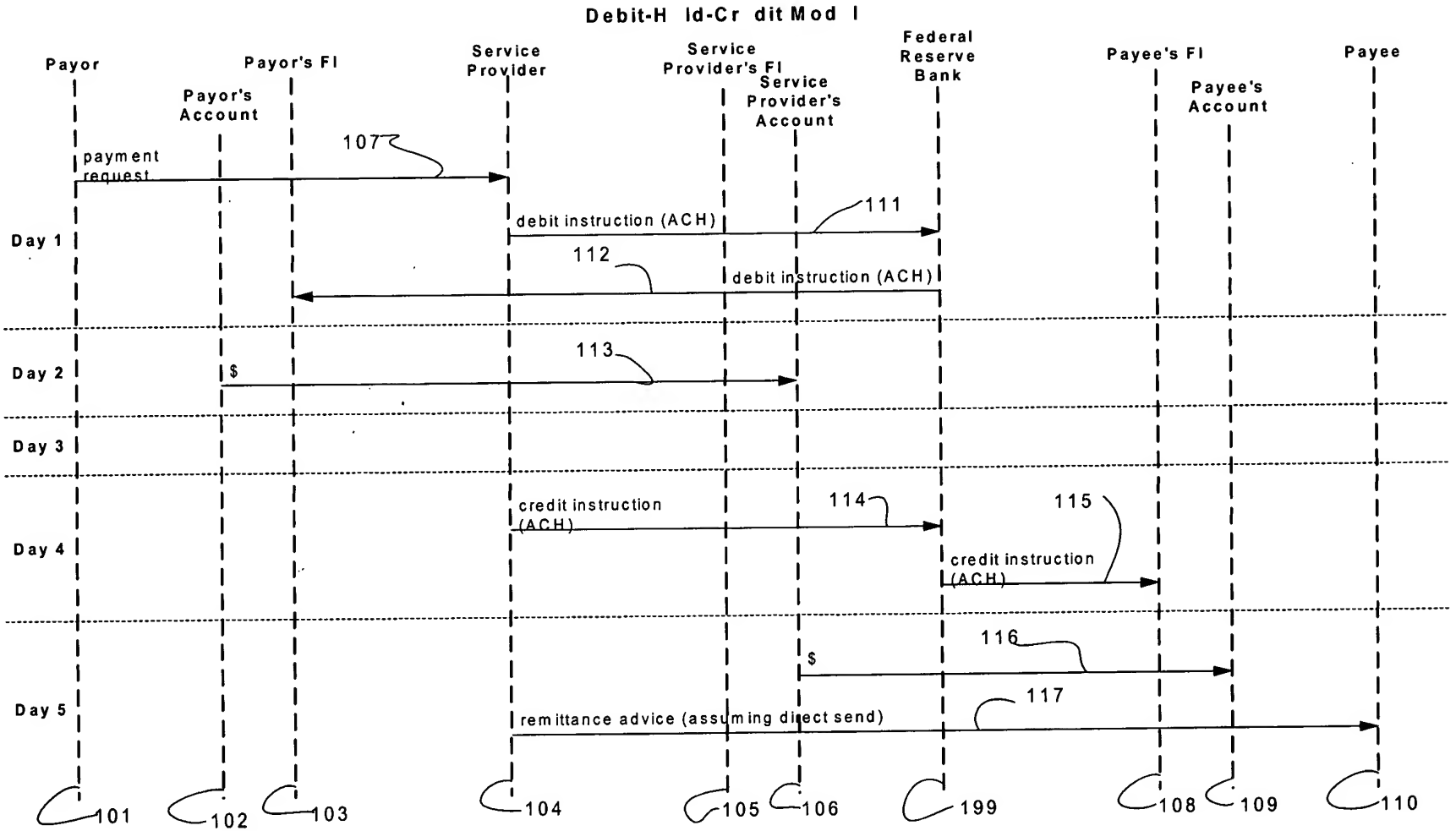

FIGURE 1
(Prior Art)

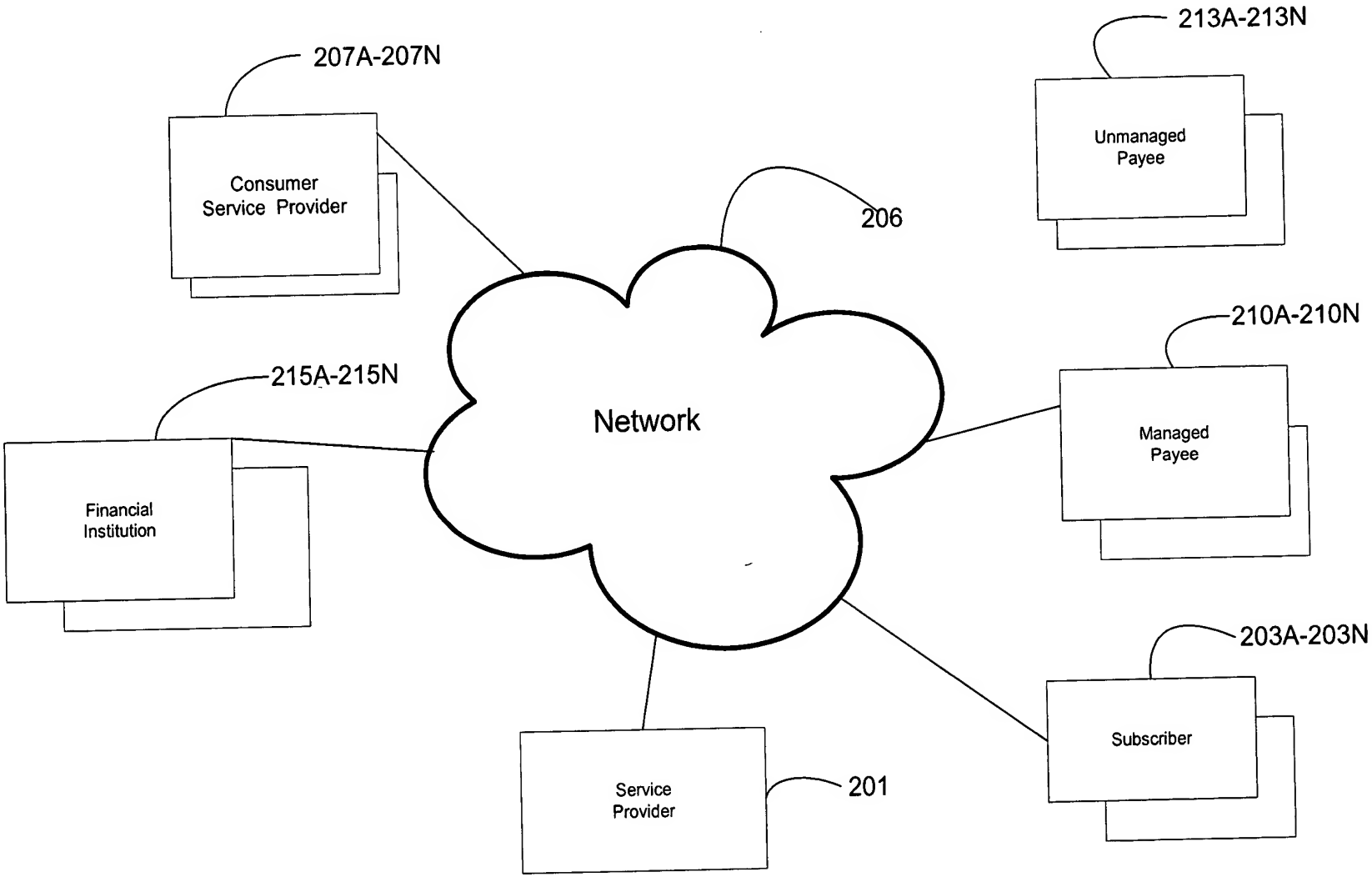
207A-207N
Consumer Service Provider
213A-213N
Unmanaged Payee
206
Network
210A-210N
Managed Payee
215A-215N
Financial Institution
203A-203N
Subscriber
Service Provider
201

Figure 2

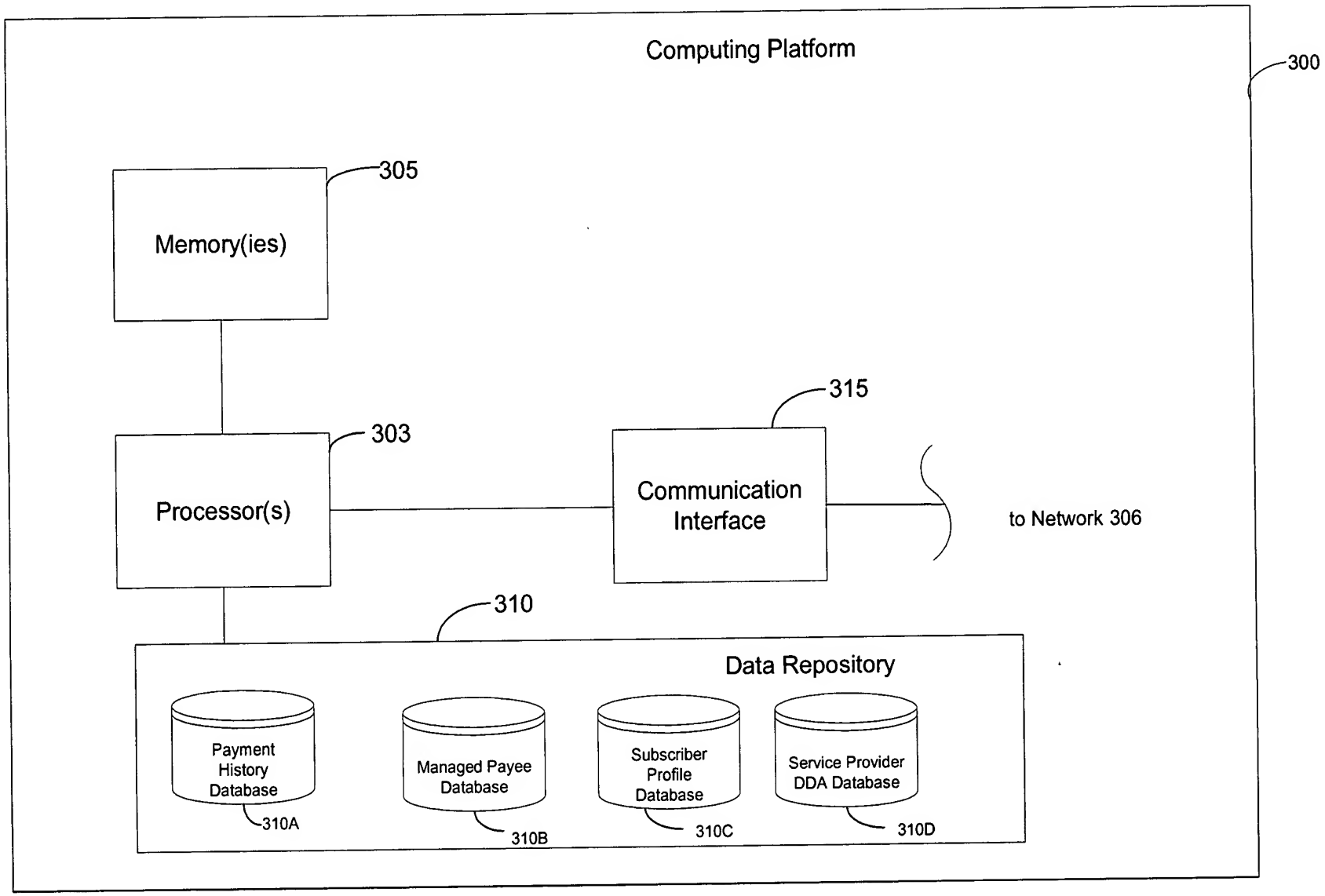
Computing Platform
300
305
Memory(ies)
303
Processor(s)
315
Communication Interface
to Network 306
310
Data Repository
Payment History Database
310A
Managed Payee Database
310B
Subscriber Profile Database
310C
Service Provider DDA Database
310D

Figure 3

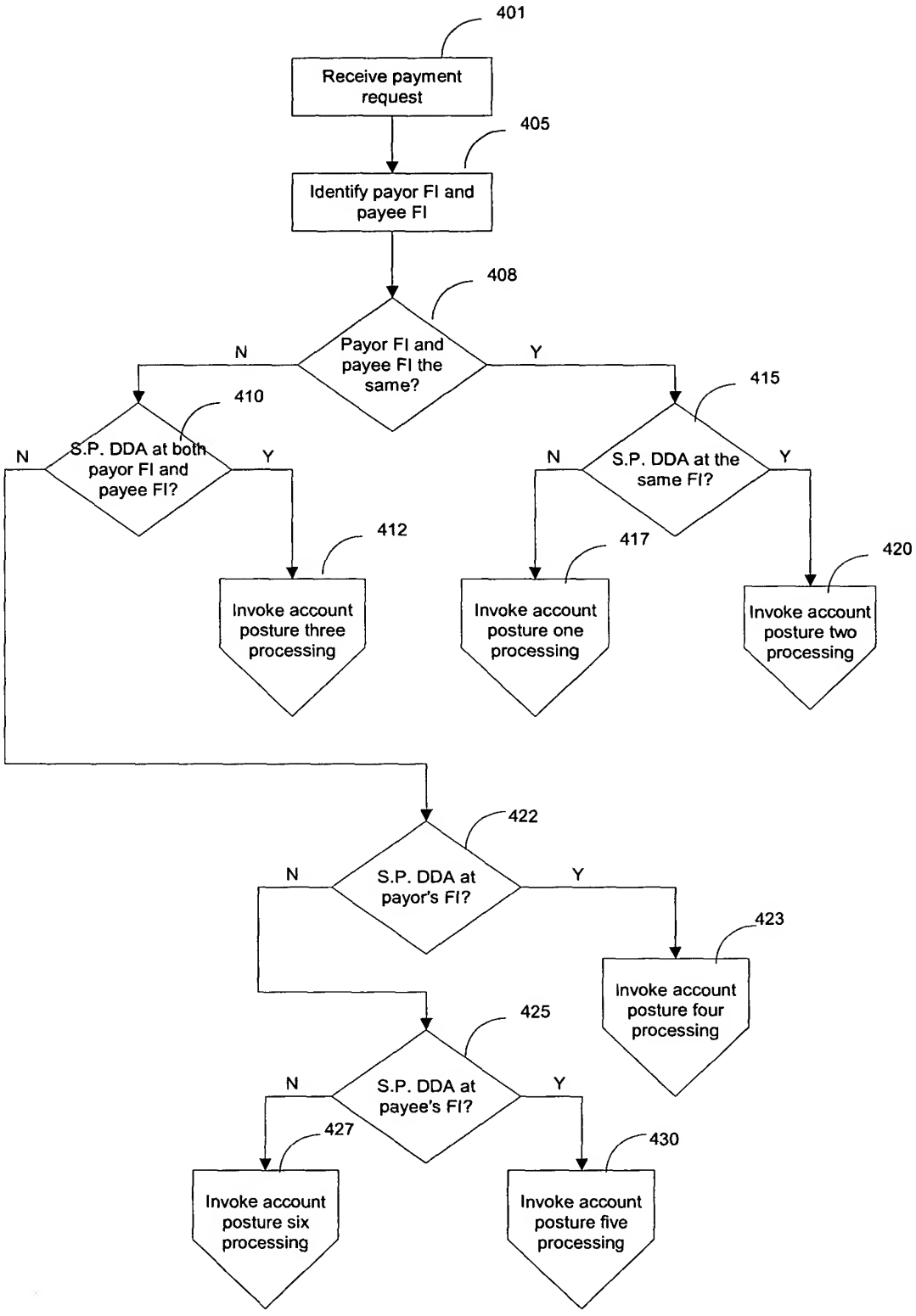
401
Receive payment request
405
Identify payor FI and payee FI
408
Payor FI and payee FI the same?
N
Y
410
S.P. DDA at both payor FI and payee FI?
N
Y
412
Invoke account posture three processing
415
S.P. DDA at the same FI?
N
Y
417
Invoke account posture one processing
420
Invoke account posture two processing
422
S.P. DDA at payor's FI?
N
Y
423
Invoke account posture four processing
425
S.P. DDA at payee's FI?
N
Y
427
Invoke account posture six processing
430
Invoke account posture five processing

FIGURE 4

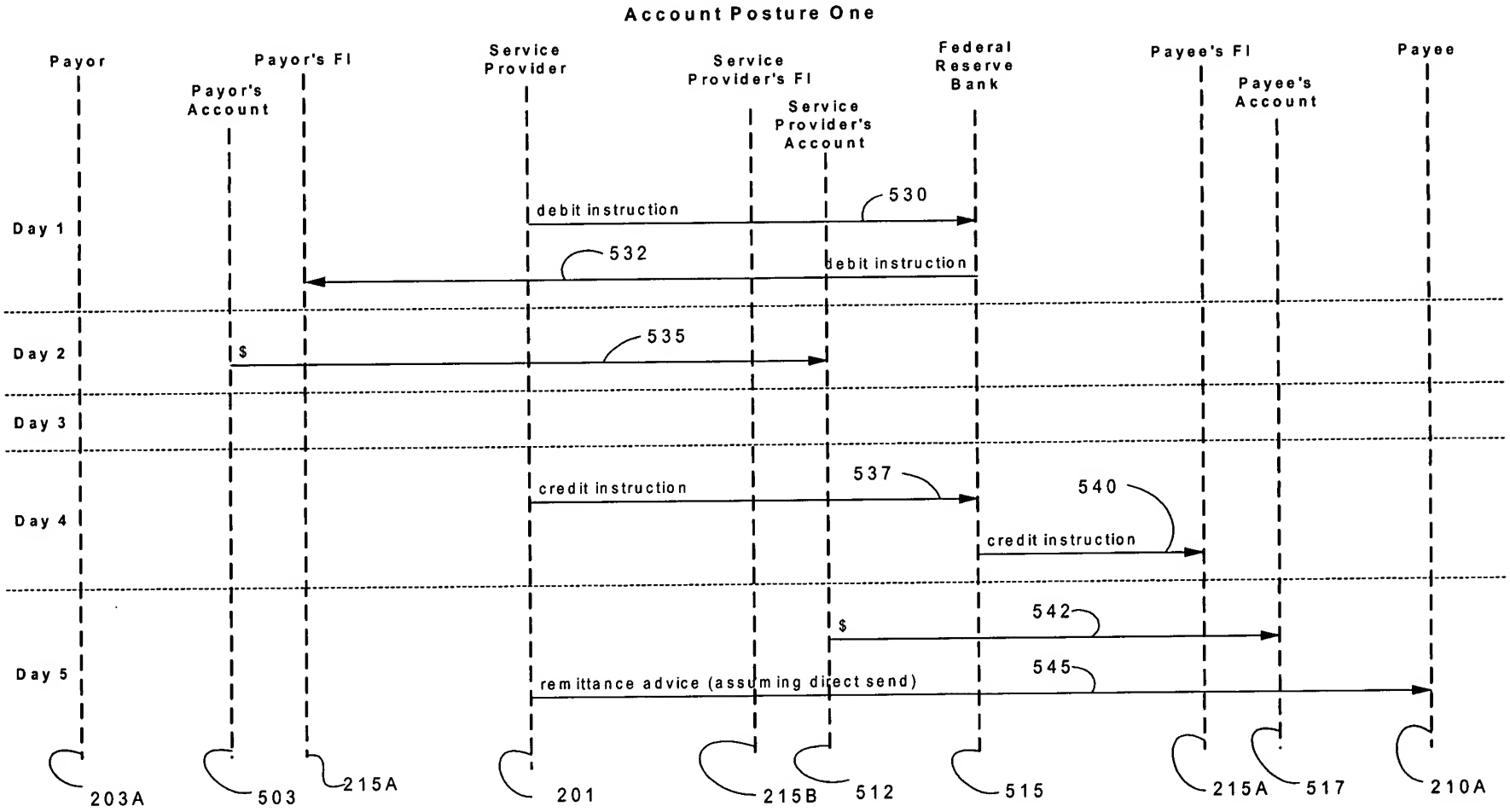
Account Posture One
Payor
Payor's Account
Payor's FI
Service Provider
Service Provider's FI
Service Provider's Account
Federal Reserve Bank
Payee's FI
Payee's Account
Payee
Day 1
Day 2
Day 3
Day 4
Day 5
debit instruction
530
532
debit instruction
$
535
credit instruction
537
credit instruction
540
$
542
remittance advice (assuming direct send)
545
203A
503
215A
201
215B
512
515
215A
517
210A

Figure 5A

Account Posture Two

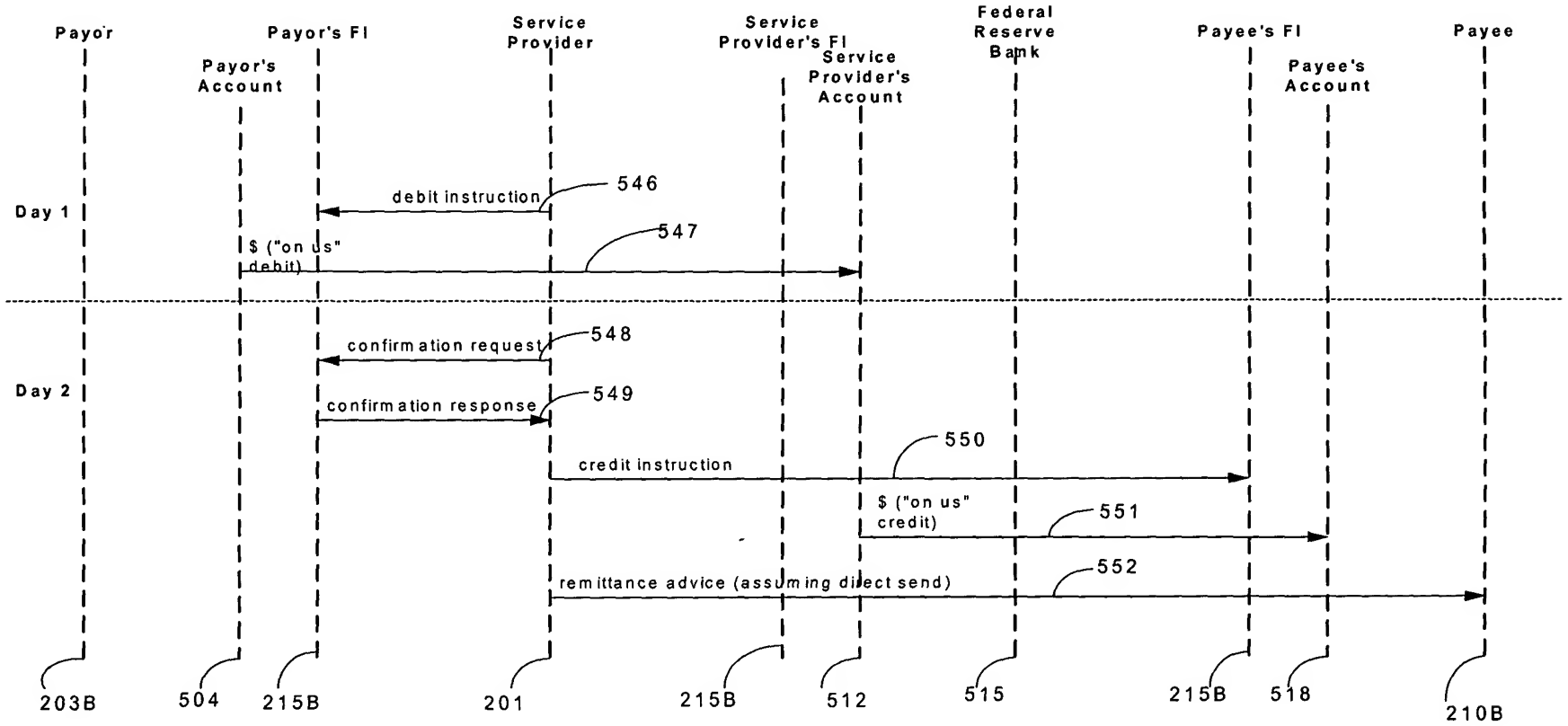

FIGURE 5B

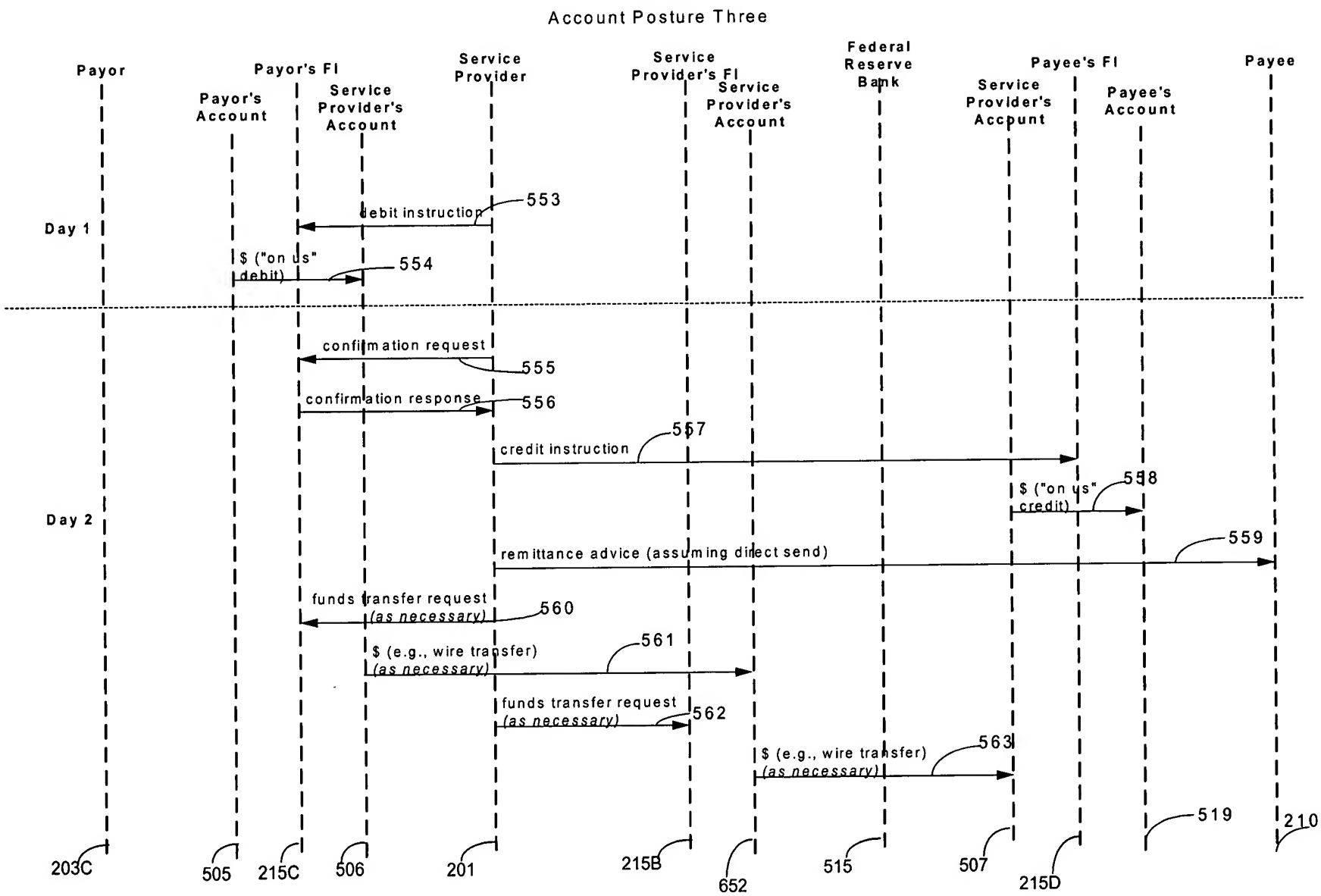
Account Posture Three
Payor
Payor's FI
Payor's Account
Service Provider's Account
Service Provider
Service Provider's FI
Service Provider's Account
Federal Reserve Bank
Payee's FI
Service Provider's Account
Payee's Account
Payee
Day 1
debit instruction
553
$ ("on us" debit)
554
confirmation request
555
confirmation response
556
credit instruction
557
Day 2
$ ("on us" credit)
558
remittance advice (assuming direct send)
559
funds transfer request (as necessary)
560
$ (e.g., wire transfer) (as necessary)
561
funds transfer request (as necessary)
562
$ (e.g., wire transfer) (as necessary)
563
519
210C
203C
505
215C
506
201
215B
652
515
507
215D

FIGURE 5C

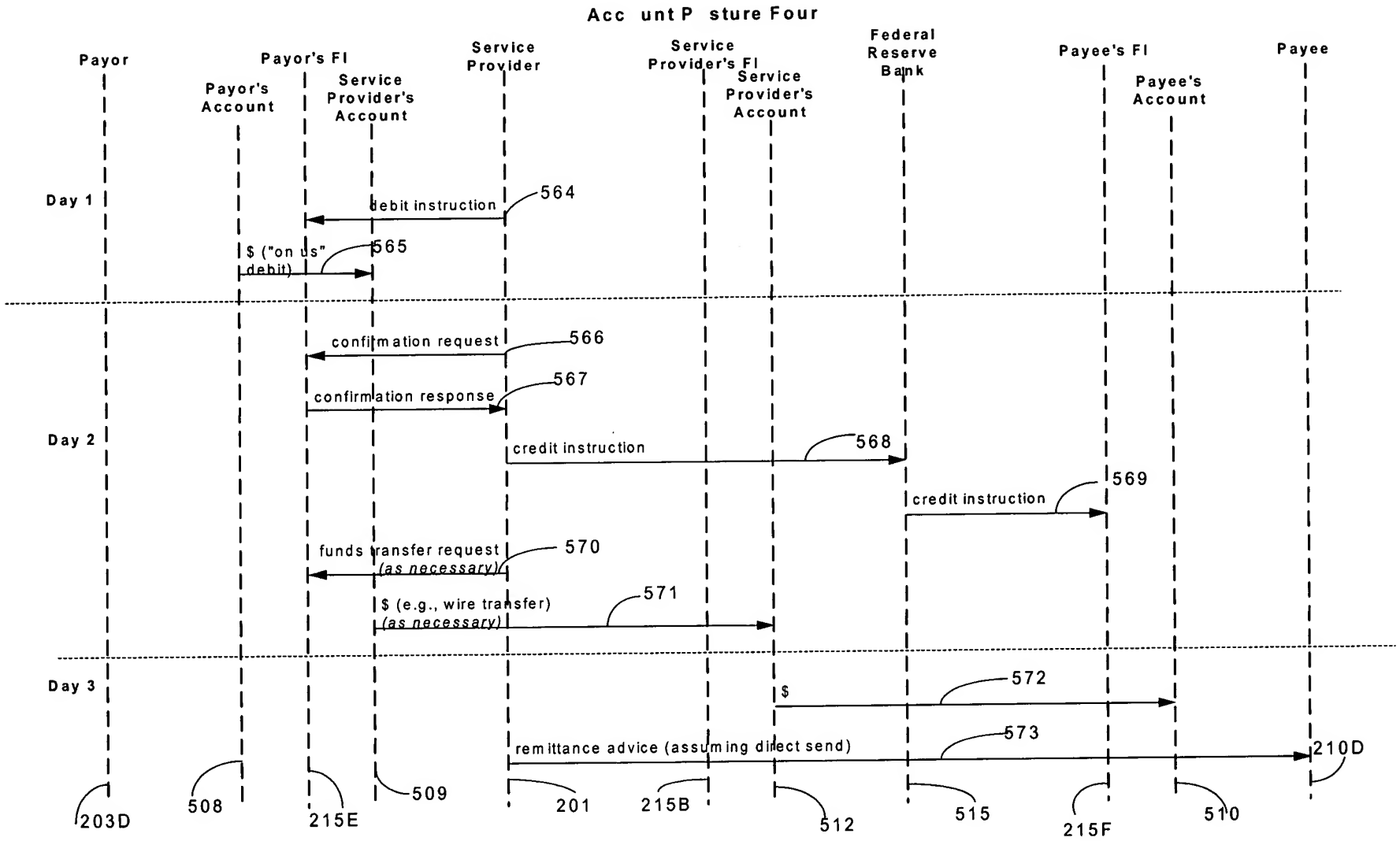
Acc unt P sture Four
Payor
Payor's FI
Payor's Account
Service Provider's Account
Service Provider
Service Provider's FI
Service Provider's Account
Federal Reserve Bank
Payee's FI
Payee's Account
Payee
Day 1
debit instruction
564
$ ("on us" debit)
565
Day 2
confirmation request
566
confirmation response
567
credit instruction
568
credit instruction
569
funds transfer request (as necessary)
570
$ (e.g., wire transfer) (as necessary)
571
Day 3
$
572
remittance advice (assuming direct send)
573
210D
203D
508
215E
509
201
215B
512
515
215F
510

FIGURE 5D

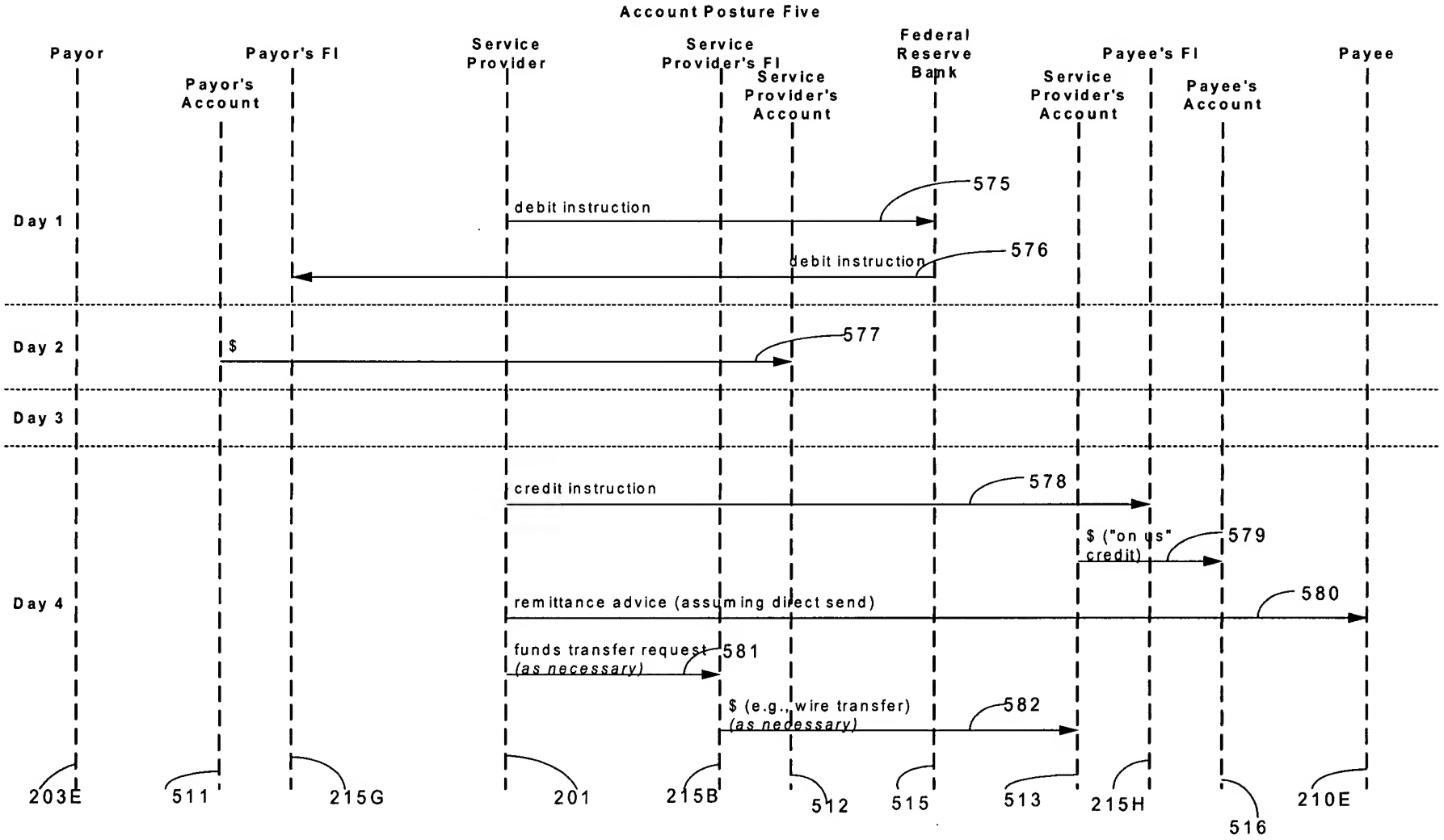
Account Posture Five
Payor
Payor's Account
Payor's FI
Service Provider
Service Provider's FI
Service Provider's Account
Federal Reserve Bank
Payee's FI
Service Provider's Account
Payee's Account
Payee
Day 1
debit instruction
575
debit instruction
576
Day 2
$
577
Day 3
credit instruction
578
$ ("on us" credit)
579
Day 4
remittance advice (assuming direct send)
580
funds transfer request (as necessary)
581
$ (e.g., wire transfer) (as necessary)
582
203E
511
215G
201
215B
512
515
513
215H
516
210E

FIGURE 5E

FIGURE 6A

#	Debit Option	Risk Analysis Required ?	SP DDA at Payor FI	SP DDA at Payee FI	Payee Reversible	Risk Factor (0=none, 9=high)	Speed Factor (0=fast, 9=slow)	Cost Factor (0=min, 9=high)	Credit Options Available	When Can Credit Be Initiated?
	Real-time authorization									
1A	• Funds to SP DDA at SP FI	N				3	0	4	3, 4	+0
1B	• Funds to SP DDP at SP FI	N			✓	1	0	5	3, 4	+0
1C	• Funds to SP DDA at *payee's* FI	N		✓		3	0	4	2A, 2B	+0
1D	• Funds to SP DDA at *payee's* FI	N		✓	✓	1	0	5	2A, 2B	+0
	Good funds									
2A	• Funds to SP DDA at SP FI	N				3	3	0	3, 4	+1
2B	• Funds to SP DDA at SP FI	N			✓	1	0	1	3, 4	+0
2C	• Funds to SP DDA at *payee's* FI	N		✓		3	3	0	2A, 2B	+1
2D	• Funds to SP DDA at *payee's* FI	N		✓	✓	1	0	1	2A, 2B	+0
	ACH file to payor FI									
3A	• Funds to SP DDA at *payor's* FI	N	✓			2	3	2	1A, 1B	+1
3B	• Funds to SP DDA at *payor's* FI	N	✓		✓	1	0	3	1A, 1B	+0
	ACH file to payee FI									
4A	• Funds to SP DDA at *payee's* FI	N		✓	✓	1	0	5	2A, 2B	+0
4B	• Funds to SP DDA at SP FI	N			✓	1	0	6	3, 4	+0
	601	603	605	607	609	611	613	615	617	619	621

FIGURE 6B

#	Debit Option	Risk Analysis Required ?	SP DDA at Payer FI	SP DDA at Payee FI	Payee Reversible	Risk Factor (0=none, 9=high)	Speed Factor (0=fast, 9=slow)	Cost Factor (0=min, 9=high)	Credit Options Available	When Can Credit Be Initiated?
5A-0	• Funds to SP DDA at *payee's* FI	Y		✓		8	0	4	2A, 2B	+0
5B-0	ACH file to Fed • Funds to SP at SP FI	Y				8	0	5	3, 4	+0
5A-1	ACH file to payee FI • Funds to SP DDA at *payee's* FI	Y		✓		7	3	4	2A, 2B	+1
5B-1	ACH file to Fed • Funds to SP DDA at SP FI	Y				7	3	5	3, 4	+1
5A-2	ACH file to payee FI • Funds to SP DDA at *payee's* FI	Y		✓		6	5	4	2A, 2B	+2
5B-2	ACH file to Fed • Funds to SP DDA at SP FI	Y				6	5	5	3, 4	+2
5A-3	ACH file to payee FI • Funds to SP DDA at *payee's* FI	Y		✓		5	7	4	2A, 2B	+3
5B-3	ACH file to Fed • Funds to SP DDA at SP FI	Y				5	7	5	3, 4	+3
6	Draft	Y				0	9	9	5	-
601	603	605	607	609	611	613	615	617	619	621

#	Credit Option	SP DDA at Payor FI	SP DDA at Payee FI	Paypr FI = Payee FI	Speed Factor (0=fast, 9=slow)	Cost Factor (0=min, 9=high)	When Will Funds Be Available to Payee?
1A	ACH file to payor bank • "On us" at payer bank	✓	✓	✓	1	1	+0
1B	ACH file to payor bank • Payer bank originates to Fed	✓			5	5	+1
2A	ACH file to payee bank • "On us" at payee bank		✓		1	2	+0
2B	ACH file to payee bank • "On us" at payee bank • Settlement from payor bank required	✓	✓		1	4	+0
3	ACH file to Fed				5	6	+1
4	Corporate check				9	8	-
5	Draft				9	9	-
801	803	807	809	810	815	817	820

FIGURE 7

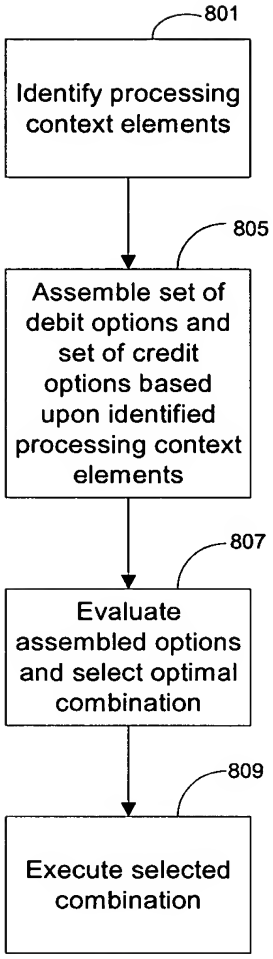
801
Identify processing context elements
805
Assemble set of debit options and set of credit options based upon identified processing context elements
807
Evaluate assembled options and select optimal combination
809
Execute selected combination

Figure 8

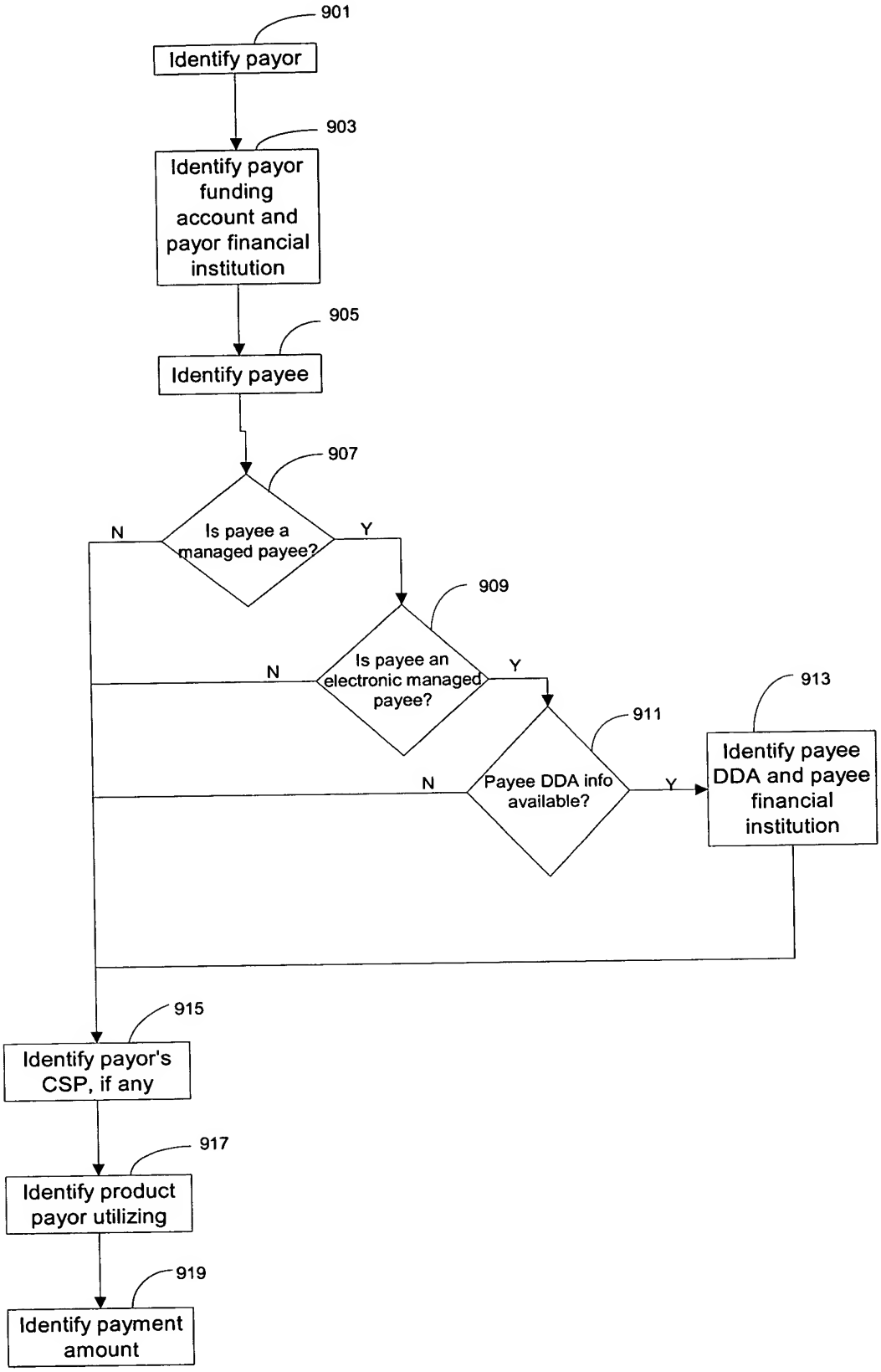
901
Identify payor
903
Identify payor funding account and payor financial institution
905
Identify payee
907
Is payee a managed payee?
N
Y
909
Is payee an electronic managed payee?
N
Y
911
Payee DDA info available?
N
Y
913
Identify payee DDA and payee financial institution
915
Identify payor's CSP, if any
917
Identify product payor utilizing
919
Identify payment amount

FIGURE 9

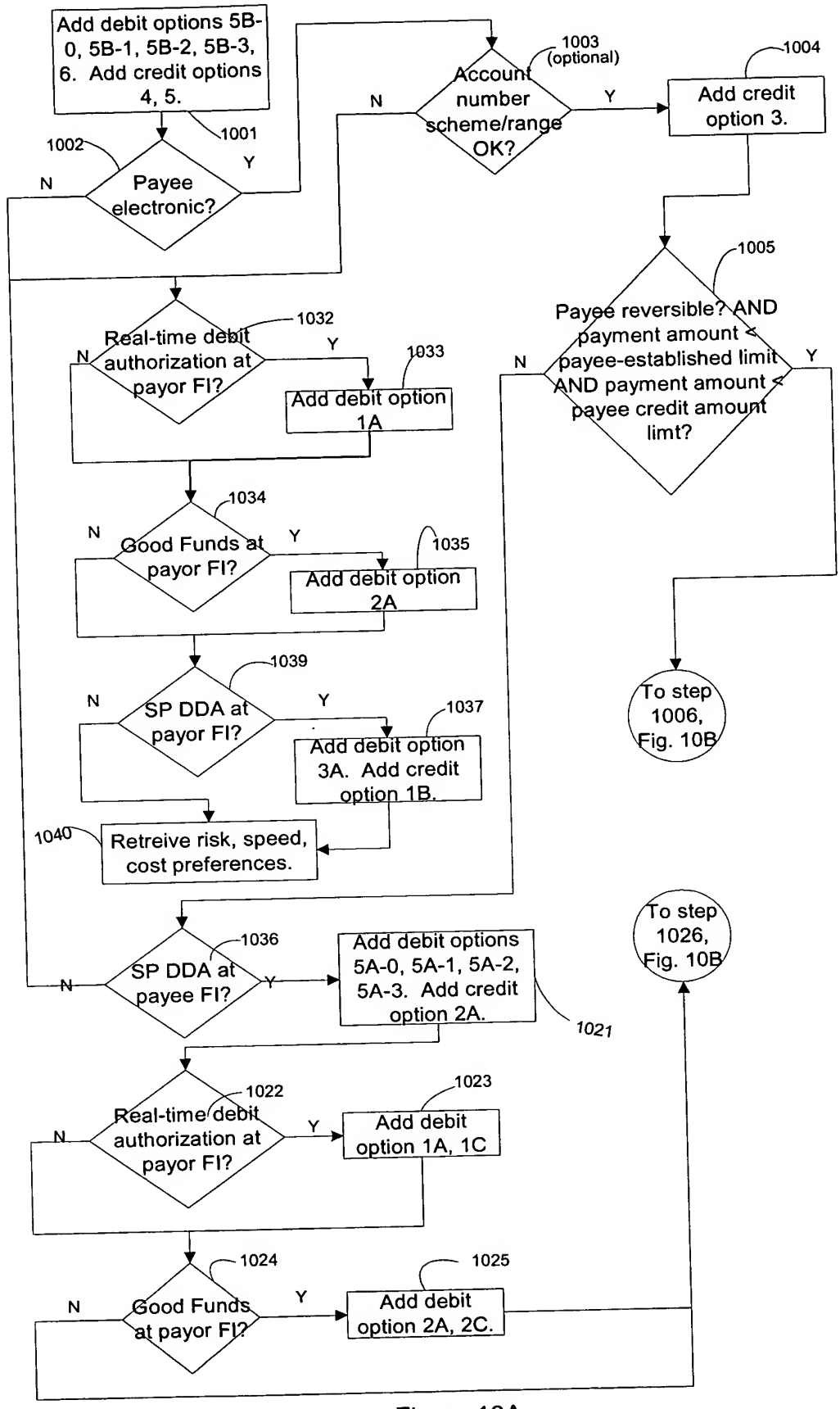
Add debit options 5B-0, 5B-1, 5B-2, 5B-3, 6. Add credit options 4, 5.
1001
1002
Payee electronic?
N
Y
1003 (optional)
Account number scheme/range OK?
N
Y
1004
Add credit option 3.
1005
Payee reversible? AND payment amount ≤ payee-established limit AND payment amount ≤ payee credit amount limt?
N
Y
To step 1006, Fig. 10B
1032
Real-time debit authorization at payor FI?
N
Y
1033
Add debit option 1A
1034
Good Funds at payor FI?
N
Y
1035
Add debit option 2A
1039
SP DDA at payor FI?
N
Y
1037
Add debit option 3A. Add credit option 1B.
1040
Retreive risk, speed, cost preferences.
1036
SP DDA at payee FI?
N
Y
Add debit options 5A-0, 5A-1, 5A-2, 5A-3. Add credit option 2A.
1021
To step 1026, Fig. 10B
1022
Real-time debit authorization at payor FI?
N
Y
1023
Add debit option 1A, 1C
1024
Good Funds at payor FI?
N
Y
1025
Add debit option 2A, 2C.

Figure 10A

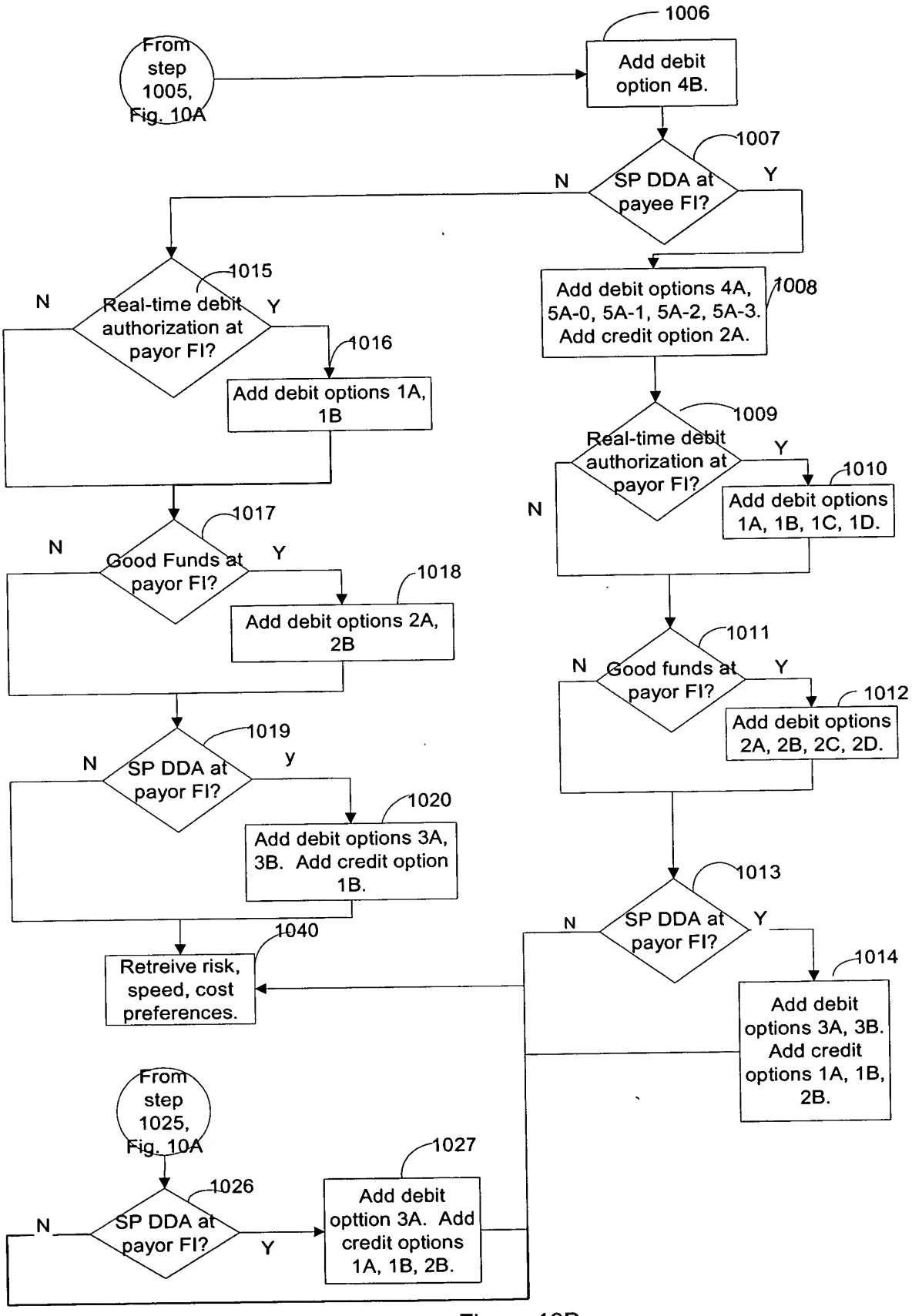
From step 1005, Fig. 10A
1006
Add debit option 4B.
1007
SP DDA at payee FI?
N
Y
1015
Real-time debit authorization at payor FI?
N
Y
1016
Add debit options 1A, 1B
1008
Add debit options 4A, 5A-0, 5A-1, 5A-2, 5A-3. Add credit option 2A.
1009
Real-time debit authorization at payor FI?
Y
N
1010
Add debit options 1A, 1B, 1C, 1D.
1017
Good Funds at payor FI?
N
Y
1018
Add debit options 2A, 2B
1011
Good funds at payor FI?
N
Y
1012
Add debit options 2A, 2B, 2C, 2D.
1019
SP DDA at payor FI?
N
y
1020
Add debit options 3A, 3B. Add credit option 1B.
1013
SP DDA at payor FI?
N
Y
1014
Add debit options 3A, 3B. Add credit options 1A, 1B, 2B.
1040
Retreive risk, speed, cost preferences.
From step 1025, Fig. 10A
1026
SP DDA at payor FI?
N
Y
1027
Add debit opttion 3A. Add credit options 1A, 1B, 2B.

Figure 10B

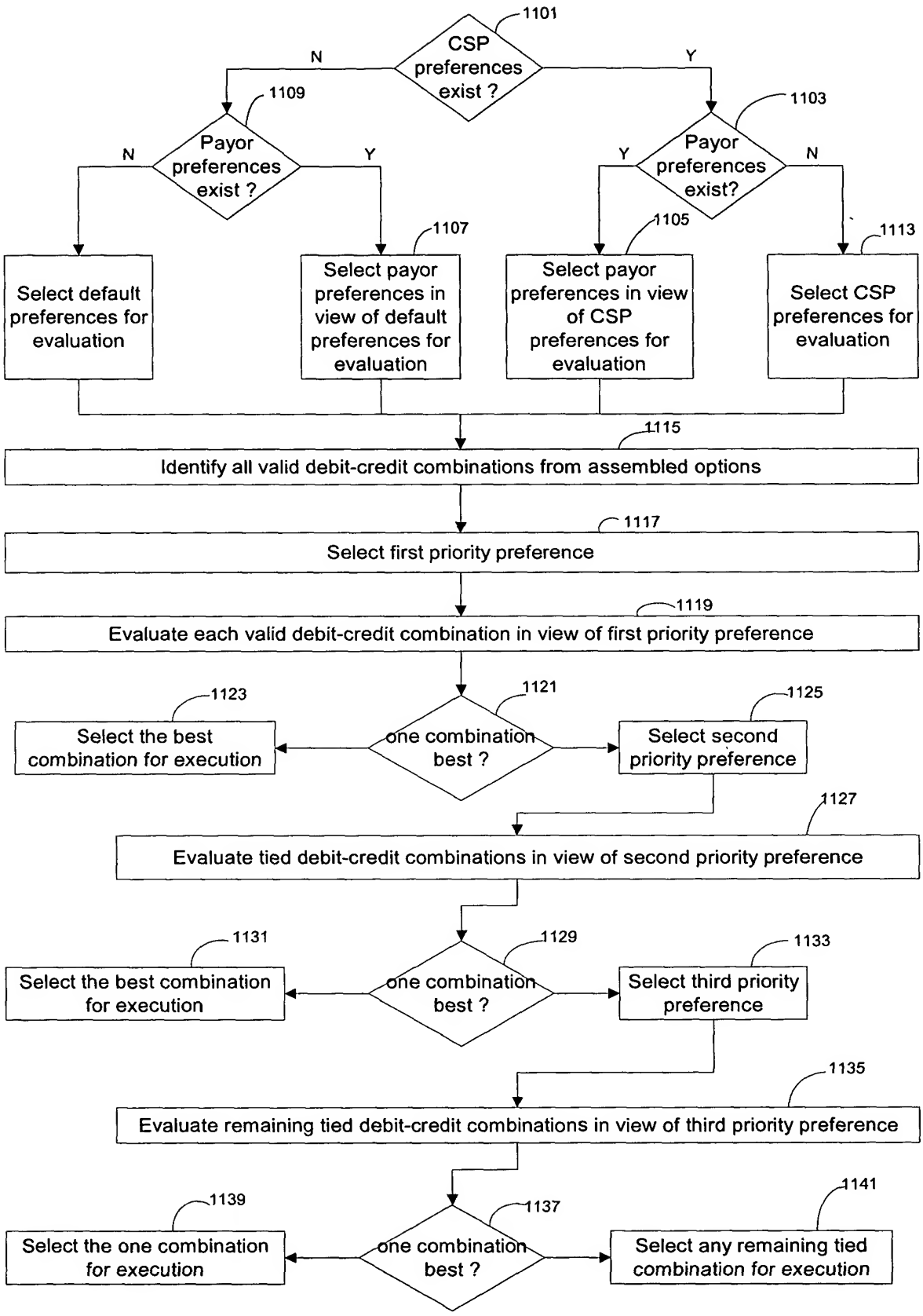
1101
CSP preferences exist ?
N
Y
1109
Payor preferences exist ?
N
Y
1103
Payor preferences exist?
Y
N
1107
1105
1113
Select default preferences for evaluation
Select payor preferences in view of default preferences for evaluation
Select payor preferences in view of CSP preferences for evaluation
Select CSP preferences for evaluation
1115
Identify all valid debit-credit combinations from assembled options
1117
Select first priority preference
1119
Evaluate each valid debit-credit combination in view of first priority preference
1123
1121
1125
Select the best combination for execution
one combination best ?
Select second priority preference
1127
Evaluate tied debit-credit combinations in view of second priority preference
1131
1129
1133
Select the best combination for execution
one combination best ?
Select third priority preference
1135
Evaluate remaining tied debit-credit combinations in view of third priority preference
1139
1137
1141
Select the one combination for execution
one combination best ?
Select any remaining tied combination for execution

Figure 11